

Claims 1, 2, 5-12, 17, 18 and 20

Claims 1, 2, 5-12, 17, 18 and 20 are rejected under 35 U.S.C. §102(a, e) as being anticipated by Sullivan (U.S. Patent 6,204,331 [hereinafter "Sullivan '331"]). Applicants respectively traverse the rejection in view of the following remarks.

The core and/or the interior layer of Sullivan '331 include one or more silicone materials which are selected from among silicone polymers (Table 11), silicone fluids, silicone elastomers, and silicone resins. Sullivan '331 discloses that the preferred filler types for silicone compounds used in golf balls include finely divided silicas prepared by vapor-phase hydrolysis or oxidation of chlorosilanes, dehydrated silica gels, precipitated silicas, diatomaceous silicas, and finely ground high assay natural silicas, fumed titania, alumina, and zirconia. That is, the silicone fillers of Sullivan '331 are compounded into silicone compounds as the material of the interior layer. However, Sullivan '331 fails to disclose, teach or suggest that the silicone fillers are compounded into the specific resins of the present invention selected from among an ethylene ionomer resin, polyester elastomer, polyurethane elastomer, polyolefin elastomer, polyamide elastomer, polyolefin resin, and styrene block copolymer. This feature distinguishes the features of claims 1 and 17 from Sullivan '331

Moreover, the fillers (such as silica or silicate) disclosed in Table 11 are inorganic compounds, which are different from the claimed silicone powder (i.e. a silicone rubber powder, a silicone resin powder, and a composite powder). Therefore, Sullivan '331 actually teaches away from the claimed features.

Sullivan '331 therefore fails to disclose the claimed features resulting in patentable distinctions between the present invention and Sullivan '331, such that the above-noted rejection should be withdrawn.

Claims 16 and 19

Claims 16 and 19 are rejected under 35 U.S.C. §102(b) as being anticipated by Nakahira (U.S. Patent 4,429,068). Applicants respectively traverse the rejection in view of the following remarks.

Nakahira discloses a rubber material which is a cured rubber comprising (A) 100 parts by weight of a rubber component, (B) 100 to 2,000 parts by weight of a factice, and (C) 200 to 2,000 parts by weight of a softening agent, the cured rubber having a maximum hardness of 30° as measured with an A-type rubber hardness tester, to a minimum of 15° degrees as measured with an F-type rubber hardness tester, an impact resilience of not less than 50% and a tensile strength of 0.1 to 100 kg/cm². As one skilled in the art would appreciate, the material disclosed in Nakahira is basically "rubber," which is different from the claimed "resin" selected from among an ethylene ionomer resin, polyester elastomer, polyurethane elastomer, polyolefin elastomer, polyamide elastomer, polyolefin resin, and styrene block copolymer. It is also noted that urethane rubber differs from polyurethane elastomer. Polyurethane elastomer is a thermoplastic elastomer having intermediate characteristics between resins (plastics) and rubbers. Also, in regard to hardness, there is a sufficient difference therebetween. Generally, the claimed material (selected from among an ethylene ionomer resin, polyester elastomer, polyurethane elastomer, polyolefin elastomer, polyamide elastomer, polyolefin resin, and styrene block copolymer) has a Shore D hardness of at least 10 degree, which corresponds with at least 40° as

measured with an A-type rubber hardness, which is different from the cured rubber of Nakahira (having a hardness of less than 30°) as measured with an A-type rubber hardness tester. That is, the soft material of Nakahira would not bring about the inventive effects provided by the present invention and does not disclose of features of claims 16 and 19. The rejection should therefore be withdrawn.

35 U.S.C. §103:

Claims 3 and 4

Claims 3 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Sullivan '331 in view of Ueshima et al. (U.S. Patent 5,502,095 [hereinafter "Ueshima"]). Applicants respectively traverse the rejection in view of the following remarks.

The patentable differences between Sullivan '331 and claim 1 have been discussed above. It is submitted that Ueshima does not supplement the deficient teachings of Sullivan '331 resulting in claims 3 and 4 being patentable at least due to their dependency on claim 1.

It is also submit that Ueshima relates to a thermoplastic elastomer composition comprising (A) 50-98% by weight of a thermoplastic polyester elastomer, (B) 50-2% by weight of a rubber which is at least one selected from the group consisting of acrylonitrile-butadiene copolymer rubber, hydrogenated acrylonitrile-butadiene copolymer rubber, hydrogenated acrylic acid ester-butadiene copolymer rubber, acrylic rubber, ethylene-acrylic acid ester copolymer rubber and ethylene-propylene copolymer rubber, and (C) a polyorganosiloxane in an amount of 0.01-10 parts by weight per 100 parts by weight of the total of the components (A) and (B), which are quite different from the aspects of the present invention. Ueshima also discloses that

the viscosity of the polyorganosiloxane (C) is from 10 to 1,000,000 cs, which is liquid in a room temperature.

The thermoplastic elastomer composition of Ueshima is used for sports and leisure goods (e.g. golf club grip, baseball bat grip, swimming fin, water glass) (see column 11, 40-42). In the grip field, such as a club grip and a baseball bat grip, it is preferable to use the thermoplastic elastomer described above because it provides a low resilience. As one skilled in the art would appreciate, however, it would be difficult to use the thermoplastic elastomer described above in the “golf ball” field because golf balls need a high resilience in view of flying performance of the ball.

Therefore, Sullivan ‘331 and Ueshima do not teach or suggest the claimed features, nor would one skilled in the art been motivated to combine these references, such that the rejection should be withdrawn.

Claims 16 and 19

Claims 16 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Sullivan ‘331 in view of Ueshima. Applicants respectively traverse the rejection in view of the following remarks.

Applicants inform the Examiner that this rejection is improper on its face because Ueshima is not discussed in the grounds of the rejection. The Examiner instead refers to Takemura¹, as shown in line 5 of section 5. Although Applicants believe that the case is in

¹ Applicants presume that the Examiner is referring to Takemura et al. (U.S. Patent 5,733,977) that was cited on Form PTO-892 provided with the present Office Action.

RESPONSE UNDER 37 C.F.R. § 1.111
Appln. No.: 09/732,786

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condition for allowance, a new non-final Office Action would be needed to obtain clarification of this rejection if the case were not allowed.

As discussed above, Sullivan '331 and Ueshima would not have taught nor suggested the features of claims 16 and 19. Takemura also fails to teach or suggest the features of claims 16 and 19. In particular, the solid core disclosed in Takemura is prepared by vulcanizing a rubber composition comprising a base rubber obtained by mixing silicone rubber and a diene rubber. The base material incorporated with the silicone rubber in Takemura is one kind of a rubber, which is largely distinguished from the materials of claims 16 and 19, such that this rejection should also be withdrawn.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

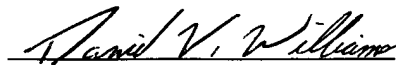
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